

Listing of Claims:

1. (Canceled)
2. (Currently amended) Radiotherapy apparatus according to claim ~~4-6~~ in which the sectional views are arranged orthogonally.
3. (Currently amended) Radiotherapy apparatus according to claim ~~4-6~~ in which at least three sectional views are prepared.
4. (Currently amended) Radiotherapy apparatus according to claim 3 in which the views intersect substantially at the isocentre-isocenter of the therapeutic source.
5. (Canceled)
6. (Currently amended) Radiotherapy apparatus according to claim ~~5~~ in which the comprising:
a two-dimensional imager responsive to imaging radiation and generating a two-dimensional imaging output;
computing means for processing the imaging output to produce tomography data
including a plurality of intersecting sectional views, each sectional view being an image
containing pixels with values derived from a plurality of voxels in the tomography dataset which
are disposed transverse to the corresponding section; in question and

a therapeutic source controllable in response to feedback from the tomography data and producing therapeutic radiation.

7. (Currently amended) Radiotherapy apparatus according to claim 6 in which the plurality of voxels are disposed orthogonal to the corresponding section-in-question.

8. (Original) Radiotherapy apparatus according to claim 6 in which the plurality of voxels are disposed linearly.

9. (Currently amended) Radiotherapy apparatus according to claim 5-6 in which between 5 and 20 voxels are employed.

10. (Currently amended) Radiotherapy apparatus according to claim 5-6 in which between 7 and 15 voxels are employed.

11. (Currently amended) Radiotherapy apparatus according to claim 5-6 in which about 10 voxels are employed.

12. (Currently amended) Radiotherapy apparatus according to claim 4-6 in which there is a display means for showing the sectional views.

13. (Original) Radiotherapy apparatus according to claim 12 in which the therapeutic source is controlled on the basis of instructions from an operator, given via an input means.

14. (Currently amended) Radiotherapy apparatus according to claim 13 in which the input means is correlated to the display means.

15. (Currently amended) Radiotherapy apparatus according to claim 14 in which the correlation is via a superimposed image on the display means which is moveable in response to operation of the input means.

16. (Original) Radiotherapy apparatus according to claim 15 in which the superimposed image is derived from one of a previous investigation and a treatment of the patient.

17. (Original) Radiotherapy apparatus according to claim 15 in which the superimposed image is an outline.